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★ *Epileptic Men of Genius* ★

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SURGICAL HOUSE STAFF 1903-1904, MASSACHUSETTS GENERAL HOSPITAL.

Back Row: Robert J. Graves, James L. Belknap, Robert D. Hamilton, John Homans, Thomas J. Burrage, Frederick J. Goodridge.

Middle Row: Arthur M. Greenwood, Francis W. Palfrey, E. John B. Bain, Frederick E. Garland, Harry D. Prescott.

Front Row: Carl S. Oakman, John Flint, Eugene A. Vickery.

Reminiscences

I. The Life of a Surgical Interne at the Turn of the Century

JOHN HOMANS, '03

Before I graduated from the Harvard Medical School, I secured an appointment at the Massachusetts General Hospital as a surgical interne. The selection of internes at the M. G. H., technically "House-pupils," but invariably called "House-officers," was in my day a very formal affair. The candidates appeared before the full senior staff, medical or surgical, as the case might be. An examination was held in the late winter to secure for the coming year (on the surgical service) three sets of three internes. It took place in the beautiful old Treadwell Library of the Bullfinch Building. On one side of a long table sat the nine Visiting Surgeons. On the other, in an ancient, carved, high-backed chair, sat, in succession the candidates. Five minutes for each was enough. Having settled yourself, perspiring, in your chair while the nine sets of eyes bored impersonally into you, you became aware that one of the group, in a very encouraging voice, was asking you a question. The first was usually simple. In my case, it was "What is the dose of morphine for a six-year old child?" This called for a calculation with which all were familiar. The staff merely wanted to know whether you could recall it under fire and they wished for no explanation. In respect to my group, the gossip was that one of us succeeded, by offering unnecessary explanations, in making three mistakes in answering this one question. He was not accepted.

As a rule, only two or three more questions were asked in the five minutes of this ordeal. If you hesitated too long, the questioner smiled in an encouraging way, said "Yes," rather tentatively, and asked

you another. Just as you felt yourself to be getting well started, the time ran out on you. But by then, the nine old men—like the Supreme Court—had a pretty good idea what it was all about. They were more concerned with your behavior than with your apparent knowledge. Besides, they had full information about you from your medical school, and often informal reports of your doings as a "striker" in the hospital. They used this terrifying form of examination to test your nerve, and, of course, to separate roughly in their minds the sheep from the goats. Announcement of the accepted candidates sometimes surprised the students, but the subsequent career of the house-officer usually justified the method of selection.

Now that men apply for hospital positions from medical schools all over the United States and Canada, the examination has almost completely lost its picturesque character. Much more searching inquiry by several methods is made, a laborious and entirely fair system. Moreover, candidates are permitted to take examinations for positions in the different hospitals of the city on succeeding days, expressing their preference for one appointment or another. Their preferences are respected, but where many desire a particular appointment, relative rank in the examination rules. Only a very little of the old means of sizing up an applicant persists, though the head of a service in some one hospital may have ways of his own. Harvey Cushing, in later years, was accustomed to give a personal interview to every candidate at the Peter Bent Brigham Hospital. He would shake hands with him, offer a cigarette, observing the

student's reaction to this act of politeness, dig into his background and consider his plans for his life's work.

In describing the house-officers' examination at the M.G.H., I spoke of the early experience of medical students as "strikers" in the hospital, by which one could informally be sized up. To a medical student, the striker's job was adventurous and more nerve-racking than enjoyable. My friend Thomas J. Burrage and I, who had been carrying on together some special studies in pathology during our second year in the medical school, were invited that spring to work at the House of the Good Samaritan, then on McLean Street, near the M.G.H. There we made our first physical examinations and did our first laboratory work. Since this was our opening experience in medical practice, it was of course exciting, but it was nothing to the few days of striking on one of the surgical services at the M.G.H. which followed.

I substituted for the regular etherizer, and as I had never before given ether, of course I distinguished myself immediately. The operation was one performed upon the neck of a large man, which made the anesthesia especially difficult, for the need of keeping the "dirty" etherizer away from the clean operating field gave me no satisfactory opportunity to apply the ether mask accurately on the face and to open a good air-way for the patient by holding his jaw forward. Actually an anesthesia of this sort requires particular skill; but I was expected to get on with the job and ask no questions. As the operation went on, the operator became aware that the patient was getting blue and finally that his color was bad, whereupon George S. Derby, the senior, dropped out of the operation to investigate the situation. Of course, the operation had to be halted temporarily to get the poor man some air; and about that time Derby wanted to know how I happened to get into that sort of trouble. My burbled explanation was that I had never given ether before, which seemed to surprise him!

Altogether, my experience as a striker was rather a nightmare—such was the state of fear imposed by the formal old M. G. H. system. I even stood in awe of George Derby for some years. He was three years older than I, a bigger boy about Boston, though I finally caught up with him, as it were, and in this wise: One afternoon some years later, I found that something had got into one of my eyes, and apparently was stuck in the cornea, for nothing would dislodge it. At that time Derby was getting to be the leading oculist of Boston, having left general surgery for that specialty. He was also an oarsman and so on a summer afternoon, I ran him down on the upper deck of the Union Boat Club. He was very helpful, finding that a cinder or a little fragment of metal was embedded in the front of my eye. We decided to drive in my run-about to his office where he would remove the fragment, cinder or whatever. In that day of open automobiles without even a windshield, we were of course exposed to dust; and as we drove down Beacon Street, Derby suddenly clapped his hand to one of *his* eyes. "By golly," he said, "I believe I've got something in *my* eye." Apparently he had, and not under a lid but right in front, on the cornea. We decided that as he was the trained ophthalmologist, he should drop a local anesthetic in my eye and scrape out my foreign body; after which I would look him over. He easily scraped out my little fragment with a fine sharp tool, and my vision was restored sufficiently to detect a tiny fleck in the front of his eye. I then administered the drop of anesthetic and dug out his foreign body with the same weapon, which seemed to place us on the same surgical level.

The M. G. H., in my youthful days, was ruled by a number of excellent traditions. The relations of the house-officers and visiting staff, though formal, were very friendly—much like that of officers and enlisted men in the Army. The visiting staff were the officers; the house staff, the enlisted men. But among the latter, there was a decided gap between the raw-

est, lowest interne, or private, and the most experienced senior; his final state, that of a senior house-officer, familiar with all the ropes and trusted by the visiting men, being much like that of a first sergeant. The interne started as an etherizer, mounted to the station of pup, in which he became the Senior's trusted slave, was promoted to the rank of Junior, in which position he began to have some independent responsibility, and finally rose to the full glory of a Senior. In each succeeding position, his superiors felt the responsibility of teaching him all they knew, handing on as unchanged as possible the traditions of the hospital, which he in turn must transmit. The Senior, subject to the directions of the Visiting Staff, was boss. All lower grades did as he told them, professionally or socially. If the Seniors decided some evening to have griddle cakes cooked in the "flat," the Pups secured the batter, cooked the cakes and served them to the Seniors. There was a tradition in my day that Seniors of earlier years would, when weary and in need of relaxation, lie comfortably in hot baths and restore their tissues with the sparkling wine of France, offered them by their Pups.

Each group of four House-officers was attached to one service, respectively, East, West and South, and each service was headed by three Senior and three Junior Visiting men. The year being divided into three parts, one encountered a different Senior (and Junior) Visiting Surgeon every four months. The Senior Surgeons of my service, the South, were Dr. H. H. A. Beach, Dr. Arthur T. Cabot and Dr. William M. Conant. They did what surgery they chose, and turned over all else to their Juniors. They exacted from their House-officers acquiescence in all their ways, big and little, by which it arose that we were advised to study our chiefs and learn to please them. For the surgeon could bestow favors, giving us operations to do—even helping with them. It was not strictly necessary that we should imitate them, though this was done, as might have been observed whenever the South

Service made a formal ward visit upon its patients with Dr. Beach. On such a visit, the surgeon walked on the right, his Senior House-officer on his left, the Junior behind Dr. Beach, the Pup behind the Senior, the Etherizer behind the Junior, and, on special occasions, Barry, the Irish ward-tender, beside him. Dr. Beach, a large, dignified man, being stiff in one knee, swung out this leg a little in walking, and so the Senior did the same—rather inconspicuously, of course—but the rest of us swung out our legs rather freely and Barry swung his most of all. Along we would go, swinging down the corridors; a most impressive sight it must have been. The Junior Visiting Surgeons were of course respected, but we would pay no such honor to them.

For the first four months, the House-officer was an externe, not interne, living outside the Hospital but coming in early each day and leaving late. He lived a subdued existence, doing the laboratory work, washing, mending and sorting out in sets, ready for operation, the rubber gloves of the operating team. He was everybody's slave, blamed for whatever went wrong and expected to pick up the details of his job without causing his seniors to waste words on him. A good Junior (two grades above him) would drop him hints, even instruct him, but the Senior was inclined to bully him. There was something more than a tradition in my day that one particular Senior, having put on his rubber operating gloves filled with "bichloride" solution and finding a pin-hole in one of the fingers, stood over the Etherizer as he was anesthetizing his patient and dropped the contents of the gloves down his neck. Actually the Etherizer had a very responsible job. But the giving of ether for surgical operations, being decidedly an M. G. H. specialty, was supposed to be understood by everyone. And undoubtedly less thought and care were given to surgical anesthesia in general than is the case today.

I would not have it supposed that the Etherizer did not have his occasional priv-

ileges. On one occasion during my tour of duty, the South Service had had a particularly tough morning, some five to six hours of operating under an exacting surgeon. The Senior and Junior felt that relaxation was indicated. "Young Homans," said they, "you go out and buy a bottle of whiskey. We *may* let you have a very little of it." So the operating team, including the Etherizer, found themselves, after their late lunch, a little cheered. At this moment, an "acute appendix" entered one of our wards and was found to require immediate operation. As it happened, the Visiting Men of our Service were not available. So a Junior Visiting Surgeon of another Service, with which ordinarily we had no traffic whatever, was called in. The operation went beautifully. The assistants anticipated every want of the surgeon and passed instruments to him almost before he himself knew that he needed them. After the appendix had been removed, Dr. Frank Balch remarked that the assistants were so very efficient, he could not see what use *he* was; so let them finish the operation. It was then that the value of the contribution which I had made was acknowledged "Look at that young fellow," said they, of the defeated surgeon, "he couldn't keep up with *us*."

A convalescent service was maintained by the M. G. H. at Waverley. There the three Etherizers took turns in doing dressings for such patients as needed them. Each had a six weeks' tour of duty, during which he spent his nights at the convalescent home. There he encountered a martinet, the large and strong Miss Scott who kept him in order. He conveyed himself to the institution by electric car, did his dressings early in the morning and escaped as soon as possible. During the Waverley service the life of the Etherizer was full, to say the least.

During the second four months, the surgical House-officer really learned his job. As a Pup, he now lived in the Hospital, and had in fact become an interne. He got little sleep, but he had an awfully good time. As the Senior's special slave,

he must keep himself available every moment, and he was apt to go about with his chief, except of course during his morning hours on the Out-Patient Service. This Service cut him off from the routine operating, though he more than made up for that with emergency and Accident Room work. He was on call for the Accident Room during one full twenty-four hours every three days. The Senior of course was officially responsible for the work, but handed down everything within the Pup's capacity to his righthand man.

A typical day might begin at 2 A. M. The Senior, having been called to the Accident Room to see a drunk with a number of bad head wounds, coolly waked his slave with the news that he would find a repair job to do. Whereat the great man retired to his peaceful couch, leaving the Pup to a two-hour battle, in which he was expected to exhibit mental and physical control while cleansing and closing a number of complicated, lacerated wounds in the inebriated one's face and scalp. Having tumbled back to bed and composed himself to sleep, the Pup was roused by his bell at 6 A. M., whereupon an agitated female voice informed him, by the speaking tube, that a patient in Ward D (Senior's Ward of single rooms) suffering from an infected shoulder joint, had become delirious, escaped from his room and torn off his dressings. Under orders from the Senior to handle such problems, the Pup dealt with this one as best he could. In the Ward corridor on the way back to the patient's room, he met a cortege, consisting of the large patient in a short night shirt with a nurse on each arm! Having fully restored order, and realizing that no more sleep was possible, the Pup did three routine dressings which the Senior had assigned to him, ate an early breakfast and went to his job in the Out-Patient Department.

About 1:30 P.M., it seemed to him that he was in for a quiet moment, but he was unaware that several patients had just entered the Accident Room, two of them suffering from minor, and one from

very severe burns. This meant an afternoon's work for all hands. The dressing of the minor burns was not so bad (this was a routine Accident Room job), but the seriously burned patient, who had been admitted to his Service, must be anesthetized, stripped piece-meal of his burned clothing, dressed, bandaged and left for a time in the Accident Room while being treated for shock—the unsatisfactory application of heat and introduction of saline fluid into the veins, as used in that day—blood transfusion being as yet unavailable and heated surroundings wrongly regarded as essential.

Six o'clock supper restored quiet for a moment, but at 7:30 the Pup was informed by his Senior that there was a "white count" to do on a patient with an "acute belly" in Ward C. "And hurry up about it," said the Senior. "I've got to report to the Junior Visiting Surgeon." (Only he didn't give him any such title. He spoke of him disrespectfully as "The Crab!") "When you've done that," said the Senior, "you will find a nice big axillary abscess to open in the Accident Room. And then you will probably have to give ether for the acute appendix you're doing the white count on." This turned out to be an accurate forecast, the only unexpected factor being that the Etherizer had escaped for the day without leaving a supply of sorted rubber gloves, so that the Pup had to rustle a set himself (promising something to the Etherizer when he could get at him). The operation was satisfactory and the Pup gave a reasonably peaceful ether, seeing the patient into bed at 11:15 P. M. After which, the Senior and he, having briefly discussed the events of the day over a glass of milk in the "flat," were preparing for bed, when at 11:55 P. M. a Patient turned up in the Accident Room with a lacerated wound of the wrist—five minutes more and the East Service would have been on duty. However, it was unquestionably their case. At first the Senior thought they should do the job themselves, but since several flexor tendons seemed to have been divided and since he could de-

tect numbness in the fingers supplied by the ulnar nerve he decided that this was a case for admission rather than repair work in the Accident Room with immediate release. It was the turn of the East Service to accept such a case. Sighs of relief from the Pup, who saw his opposite number on the East Service, whose turn for emergency duty it was now to be, starting a bright, new day.

The Junior's life was different. He became somewhat independent. The trusted associate of the Senior, and second assistant at the operating table, he had charge of the admitting and recovery wards. He studied and reported upon cases newly admitted to these wards. He received patients recently cared for after operation by the Senior and his Pup. But he was not expected to treat the very ill. They occupied the Senior's single-room wards which he shared with the two other Surgical Services. He joined the full team, so to speak, only at the operating table and on formal Ward visits with the Visiting Surgeons. He was apt to develop independent characteristics which might be valuable to him later or might have to be knocked out of him when he became a Senior. The nursing service might be a little distrustful of him, a matter which fell within my own experiences.

As a new Junior, I entered one of my wards one day to find a newly admitted patient sucking on a thermometer, attended by a new nurse of the probationer vintage, the sort which wears a circular collar but it not allowed to add a necktie, in order that she may feel an inferiority complex at all times. I had some little job to do for ten or fifteen minutes, after which I noticed that the same thermometer was projecting from the mouth of the same patient, the same nurse standing by. "Good God," said I, "how high do you suppose that patient's temperature has gone after all this time?" and thought I was being rather cheery. The next day, I was summoned to the office of the Superintendent. "I have a serious complaint against you," said he. "You have insulted a nurse."

Blank surprise from me, whose conscience, for a wonder, was clear and who couldn't think what it was all about. It turned out that I was in trouble over the thermometer episode. I suggested that though I did not consider my behavior so screamingly funny, there must be a lack of humor on the part of the opposite party. Higher authority agreed.

The Senior's job, as will already have appeared, was one of much responsibility and authority. No exactly corresponding position exists today. There was no one between him and the Visiting Staff, who, if they thought well of him, could make his life very pleasant indeed. They would approve his acts, accept his word for the state of the surgical problems of the Service, and give him considerable surgery to do. The Senior and Junior Visiting Surgeons on duty during his four months of Seniorship naturally desired to trust him. Yet if they could not, his life would be unhappy. They might feel obliged constantly to inspect the patients under his care, distrusting his reports of their progress. And they would delegate to him as little authority as possible. Bland assurance on the Senior's part that everything was going well would by no means go down. If his position was to be maintained with credit, it was important that his group should be fully harmonious. A willing and skillful Pup was essential, one who kept his Senior exactly informed as to the state of the patients for whom they jointly cared.

The Visiting Surgeons might be making a visit in the morning—the Pup being in the Out-Patient Department. Coming to the bedside of a patient recently operated upon, the Surgeon might say, "I see that this man is running a little temperature. I hope he is all right." A good Senior with a good Pup, having been fully warned by the latter that a moderate wound infection appeared to be developing, would reply that a "stitch abscess" was forming but that otherwise all was well. But if it was well known to the Visiting Surgeons that the Senior was inclined to be a little

careless and optimistic, they would feel that they must make a complete inspection of the patient, discovering perhaps matters as to which the Senior was ignorant. One or two episodes showing incompetence and there would be no more harmony on the Service.

Actually the Senior carried a heavy load. He must know when to take things upon himself and when to pass along his doubts and uncertainties to his visiting men. Above all, he must display coolness and common sense. If he did so he might well be able to seize an opportunity to do something really brilliant. Whereas if his mind was fixed rather on "making a hit" than on the thoughtful study of his problems, he would be likely to fail just when he would most have wished to succeed. It might be supposed that, under such a system, patients were subject to unnecessary hazards. So they might have been, had it not been for the excellent system of handing down knowledge derived from experience—a tradition of competence and pride in their work which went through the Staff from the Senior Visiting Surgeons to the lowest, greenest House-officer.

Strange, the particular events one most clearly remembers. I seem to have almost more vivid recollections of doings with Barry, the South orderly, than of any others. Barry was a character. His chief duty was service in our operating room, into which he wheeled anesthetized patients and properly placed them on the operating table. He then acted as general factotum in the room, handing packages of "dry goods" to the nurses, helping the operators on with their gowns, filling basins with sterile solutions, producing a cautery if required, moving screens, adjusting lights and carrying messages. But Barry's knowledge of the Service and everyone attached to it was penetrating and minute. He very definitely steadied the operating team. "Don't worry about anything outside your operative field," he might have said. "I am here." He would produce a glass of milk at the right moment for Dr. Cabot, popularly believed

to have a gastric ulcer, who was apt to become particularly irritable when in need of sustenance, late in the morning. But on an afternoon when some little accessory operation had to be done by the House-officers themselves, Barry might appear wearing Dr. Cabot's spectacles and his operating mask and gown, seat himself on a stool and say: "Fly round, fly round," a favorite expression used by Dr. Cabot to stimulate the House Staff.

One never-to-be-forgotten night, all electricity for the entire hospital was suddenly cut off. There were no lights anywhere, including the operating rooms. I, myself, had just encountered one of the Assistant Superintendents of Nurses carrying a long candle, and with the word that she had more than her share, had got away with half of it. With this I found my way to the "septic" operating room, where my colleagues were carrying out an emergency abdominal operation. The Surgeon, Dr. Farrar Cobb, was Superintendent of the Massachusetts Eye and Ear Infirmary as well as Junior Visiting Surgeon. From the windows of his operating room could be seen the cheerful, lighted windows of the Eye and Ear Infirmary. But the operating room was pitch dark. Some one was just about to ligate a good-sized blood vessel when darkness shut down and the atmosphere had become hectic, to put it mildly. I entered the room with my candle just in time to discover Barry, standing on the raised visitors' seats, gazing out of the great window and to hear him say, "How bright the lights are shining in the Massachusetts Eye and Ear Infirmary!" One might learn a lot from Barry who could make life very pleasant for one if he wished. He must in some degree have approved of me for he contributed to my education by teaching me how to spell G E O G H E G A N and to pronounce it "Gagin."

There is something about hospitals and institutions of learning which tends to develop such men as Barry. They will be found in all departments, operating rooms and particular buildings. That their effi-

ciency and faithfulness have any particular relation to their financial reward I very much doubt. They are specialists in their positions and take pride in their work. Not all, of course, have Barry's humorous touch. His opposite number on the East Service, Henderson, was quite as capable, if less colorful. He long continued, after Barry had passed on, to be the major domo among the orderlies, affectionately known to all the hospital staff and doubtless well aware of their good and bad qualities and of their subsequent careers.

House-officers have an opportunity to learn a great deal about the members of the Visiting Staff—from the inside. But certain of these leave behind an especially vivid memory. Medicine and surgery are, in a considerable degree, arts; their practitioners, artists. And like other artists, surgeons are often temperamental. Hence the picturesque quality of some, by contrast with others who are merely competent. Of the chiefs in my own Service, Dr. Arthur T. Cabot made the greatest impression. One of several brothers, he represented with distinction that great family, men of decided ability in business and with scientific and artistic leanings. He himself had broad interests and was a member of the Corporation of Harvard College. Among other things, he was a hunter of the upland game birds of New England. He was middle-sized, slender, nervous, intelligent, and of a countenance, like many other Cabots, at first sight forbidding. As was also true of a good many surgeons of the day, he was an irritable operator, taking out the nervous strain of surgery upon his assistants. But he could smile delightfully—and unexpectedly—and would do very pleasant things for us. I have suggested that some of his irritability was of physical origin. But surgeons were not then expected, as they are today, to conceal their emotions. This was, perhaps, a safeguard for their patients. For letting off steam upon their assistants may well have allowed them to consider more judiciously their immedi-

ate human problems. But they set us young fellows a bad example of irascibility and strong language which many of us have failed to throw off.

As a Senior, my first experience with Dr. Cabot, following my Junior vacation, was exciting and led to a very pleasant relationship between us. I had assisted him in an abdominal operation of a relatively simple sort. The patient, a woman, had then been, I suspect, my first transfer to the post-operative Ward C. This Ward was presided over by a nurse of whom I had heard rumors that she considered me "fresh" and was likely to teach me something about my new job. She did. In the afternoon, she sought me out to tell me that the patient of that morning was very ill, that she showed signs of internal bleeding. We hurried to her bedside and I agreed. Obviously, the wound must be reopened and the hemorrhage controlled. I rushed off to the sterilizing room to throw a pair of rubber gloves and some instruments into the canvas bag in which they could quickly be boiled. As I was standing waiting for the moment when I could remove them from the boiling water, the head nurse returned, saying, "The patient is barely alive; if you are coming at all, you had better come now." So with gloves and instruments still half sterilized, I ran to the ward and reopened the wound of the unconscious patient, clamping and ligating the points which seemed to have been bleeding. (To those familiar with such episodes, it will not appear strange that though the abdominal cavity was filled with blood, actual bleeding had ceased. The vessel from which it had occurred could, however, be identified). The patient recovered, thanks to Miss McLennan's recognition of the emergency and her vigorous management of me; and we became fast friends thereafter.

A couple of days later, as Dr. Cabot was starting to operate upon a "recurrent appendix," I was almost overcome to hear him say in his quietest voice, "John, wouldn't you like to remove this appendix?" "Yes, sir," said I. "Then change

places with me," said he. We exchanged positions and he assisted me in the operation. I have since realized that Dr. Cabot was not only a very progressive and enterprising surgeon, but conscientious to an unusual degree, a New Englander of the New Englanders.

Dr. Beach, a surgeon of Civil War vintage, and more nearly a contemporary of my father, was of a very different sort. He was close to the age of retirement—cautious, dignified, a little pompous. We House-officers felt that he was lacking in enterprise, and though we would be surprised now and then by an act of successful boldness on his part, we were more accustomed to the sort of thing which occurred one morning in the beautiful little Ward E operating room. The full South Surgical operating team was engaged in a pelvic operation, removing one by one a number of fibroid tumors. As the operation was reaching its end and Dr. Beach was controlling, by pressure with a gauze pad, an almost microscopic ooze from one of the uterine incisions, a nurse requested permission to speak to me. This being granted, she reported that an emergency case had been admitted to Ward A (my male ward). It seemed to me that some action should be taken. Feeling sure that I could well be spared from the operating table, I asked permission to inspect the new admission. "I will not imperil the safety of one patient," said Dr. Beach, "for possible danger to another." Well, there we were. Dr. Beach's patient continued her uninterrupted course toward recovery and there was nothing special the matter with the new patient anyway.

My final experience with Dr. Beach taught me a lesson in good manners and showed what a gentleman he was. He had operated, at the end of his tour of duty, upon an elderly man who turned out to have a hopelessly malignant growth, not only impossible of removal but calling for particular after-care. I had taught this patient the details which he himself must carry out and had put him in the way

of leading a comfortable life—which was of course my job. But soon after, I received a personal letter from Dr. Beach thanking me for having taken so much trouble for a patient in whom he was greatly interested.

The third member of the South Service, Dr. Conant, was considerably younger than these two. He was well up in Harvard athletic circles, a popular and very practical, competent surgeon. In figure he was short and stout, so that he had acquired the friendly nickname of "Stubby." Dr. Conant was always ready to turn over surgery to his House-officers if he believed them competent; and the House-officers' months with him were happy ones. Indeed, to his service there was only one drawback. While assisting his Senior in an operation, he was more inclined to instruct any visitors who might be present than to attend to his job as assistant. Becoming aware that he was not helping, and even, in fact, hindering, he would say, "A good surgeon, you know, makes a bad assistant." To which the Senior and Junior would reply (mentally), "Yes, *great* surgeon."

Several others of the Senior group made a decided impression on me, though I myself had little contact with them. Dr. J. W. Elliot was looked upon as a very skillful surgeon with whom the House Staff could never be intimate. His Senior of my day, who greatly respected his ability, regarded him as a martinet. A tall, very handsome man, he was reported never to unbend to his House-officers, but "gave them what-for" if they failed to carry out his directions. Of a very different sort was Dr. Samuel J. Mixer. He was, of all the Staff, the most willing to lead a forlorn hope. If he saw a chance to save a very ill patient or to prevail over some fantastically difficult disease or tumor, he coolly went at it. I was not on his Service, but I recall patients suffering, for example, from advanced appendicitis, whose family or friends were convinced that an operation must be performed. Other members of the Visiting Staff could

see no benefit and nothing but discredit in such surgery, but not Dr. Mixer, who would offer the family the comfort of a surgical effort. In my time he successfully operated upon a boy who had long been shut off from the world by a bizarre and unsightly tumor of the face.

In my student days Dr. C. B. Porter was ending his M.G.H. career, much to his unhappiness. His was an unforgettable face—a big, white moustache, red cheeks and large, bold eyes. He had unlimited courage and great practical skill. He had been known to step into the operation of another surgeon when a fatal outcome seemed inevitable and find a quick and safe way out. He would give endless hours to difficult operations, without any reward but the satisfaction of a thankless job well done. And though he could hardly bear to give up such work, I can remember some of my associates saying that recently he had seemed to call more and more often for special lighting at his operations; which perhaps meant that Dr. Porter was no longer quite the man he had been. The matter was particularly noticeable because in that day a call had to be made for a shaded electric bulb fitted to the end of a long stick. This the operating orderly patiently held extended over the operating table. The Porters had been medical men for seven generations, I think. And, C. A. (Ally) Porter followed in his father's footsteps. He was a Junior Visiting Surgeon in my time, but already was becoming well known as an ingenious, skillful and progressive surgeon. He was almost as much of a "forlorn hope artist" as Dr. Mixer, a keen teacher and was afterwards to hold the Professorship named for my father.

The most famous perhaps of all the group was Maurice H. Richardson. He was a man of tremendous energy, as might have been expected from his physique. My father used to tell him that he should properly have been a lumberman. For all that, he was remarkably skillful and not only in his surgery. He could write the Lord's Prayer on a paper disc the size

of a ten-cent piece. He could perform tricks by sleight of hand. He could play almost any musical instrument—from the oboe to the piano—and with evident taste and feeling. He was well set up, though his cheeks and his body were decidedly full. He used to say that to get up steam enough to do much work, you must have a big boiler. And along with such an unusual combination of qualities, he had a strong sense of the dramatic. He liked nothing better than to arrive so late for the Saturday morning operating in the Bigelow Amphitheatre that the other surgeons would have finished their work. Then he would put on a one-man show, to the delight of everyone except perhaps his team of House-officers. That the audience might miss nothing of the operative demonstration, he was accustomed to keep himself and his assistants out of their line of vision, even carrying on a long and difficult dissection with his left hand in order that every step might be seen.

Though not in Dr. Richardson's service, I tried to miss as little as possible of his doings, which were always talked over by the House Staff. However, I am sure that I should never have heard of the one now to be described, from his own Senior, who happened to be a victim of one of his Saturday demonstrations. At the end of the morning, Dr. Richardson introduced as his last case a patient with a fragment of needle in her wrist. "I don't like to undertake this operation," said he, "especially before a large audience. Two attempts have already been made to find this needle, both by very good men." Here of course he paused, for effect. "The first was made by an excellent surgeon in the Out-Patient Department; the second by my House-officer, Dr. Vickery, here beside me." At this point, Vickery began to blush. "Dr. Vickery is the best Senior House-officer I have ever had," he went on, waving his hand at Vickery, who stood up very straight and became almost purple in the face. By this time, all had been prepared for the operation—the patient under ether,

the wrist laid bare and scrubbed, showing a clean linear cut, closed with stitches, just above the upper limit of the hand on the palmar surface of the forearm. The X-ray plate was on display, showing half a needle lying transversely in front of the wrist joint, at a right angle with the course of the great tendons and nerves. In this transverse position, the needle could be reached by a cut of the knife parallel to the tendons, so that these need suffer no injury. "Well," said Dr. Richardson, "if those two expert fellows have not been able to find this needle, what chance do I have? They are just making a fool of me." Whereupon he made one snick, continuing the old incision about half an inch lower, and as the knife grated against the needle, he picked it out of the opening. Cheers and laughs, of course, and little sympathy for the unfortunate Vickery. Dr. Richardson, drawing on his knowledge of anatomy, had made his incision a bit more distal than the former exploration, entering what appears to be the proximal portion of the hand but which actually is the correct approach to the wrist joint.

So much for our Visiting Surgeons, from whom we learned our surgery and who, we hoped, might some day offer us a chance to help them in their private practice.

I can remember few sadder moments than the last weeks of my service as Senior House-officer at the M. G. H. After the first months of uncertainty, one had got into the swing of the life. There was never a dull moment, and there were many very pleasant and exciting ones. Of course, one had a false sense of one's own importance; but the exercise of authority as Senior, the confidential associations with one's chiefs and, above all, the first opportunities to cure patients, all were endlessly interesting. Only in the last days did it enter one's mind that one was soon to be a very much pricked balloon. It would be a long time before one would again hold such a place in the world.

Amazonas, Old and New

LEWIS W. HACKETT, '12

Everything was confusion at Lima Tambo. The fine new airport building was being used for the first time. No one knew where to go, not even the officials and the "changadores". "The old place was better", remarked an uneasy traveler, disliking the grandiose dimensions of the concourse. Some people take comfort in the old ways. When the earlier airport was opened, doubtless someone lamented the passing of the mule and the canoe. I admit that I was struck with a little unreasonable sadness myself at the thought that the mysterious Amazonas, fabled land of impenetrable jungle, exotic animals and beautiful nude warriors on horseback, where Colonel Fawcett lost his life looking for the legendary city of a vanished civilization, and Roosevelt's famous expedition ended almost in disaster, should now be accessible to anybody in a few hours by plane. Not only is the world smaller than it used to be, it has become more crowded and commonplace; the mountains have shrunk, the poles are way-stations from one continent to another, nothing is sacred, nothing is new. Now we know there are no beautiful warriors on horseback in the Amazonas, and that there never were any because there are no horses.

Our new DC-4 (unlike the little old one-motored yellow peril in which I first went to Iquitos) took the first range of the Andes in its stride, crossed the narrow and deep valley of the Marañón, climbed the higher range to the east and soared down to the great forest below which covers half of South America like a sea. Impenetrable everywhere, its population must cling to the river banks which are the only thoroughfares, where they build themselves little temporary refuges from the incessant rains. They excavate a little space around them with fire and machete and cultivate these "milpas" for two or three years; then the irresistible jungle, like an ocean, flows back in.

Iquitos was built on a sandbank 99 years

ago by a band of refugees escaping down river from the head hunting Jíbaros of the Upper Amazon. These belligerent people are not all of one tribe. More than fifty different languages are spoken on the Solimões, the Rio Negro, the Marañón and the Madeira rivers and their tributaries. When there are no invaders, they fight each other and they communicate when necessary in a dialect of Quichua which is a kind of 'lingua franca' all up and down the Cordillera. They shrink the heads of their enemies killed in battle, but they are not cannibals; they eat a piece of the heart and liver of the vanquished adversary in order to absorb something of his skill, bravery and intelligence. These qualities in turn are passed on to the next conqueror, and to his conqueror, so that one would suppose that the present race would be composed of supermen with all that accumulated and compounded wisdom and power. The real Jíbaro is therefore a considerable disappointment. If he has anything extraordinary it is successfully concealed by his shock of hair and the bit of banana leaf he wears.

At Iquitos the great river is wide and majestic, although the placid yellow water must still flow almost 4000 kilometres to reach the sea. The town however is dead. It died when the rubber boom collapsed in 1912, and was then galvanized to a feverish but unnatural activity by the second world war when rubber and barbasco (rotenone) were in great demand. Now rubber is made from oil, and DDT has replaced barbasco, so that a small factory which makes buttons out of ivory nuts is about the only industry left, although better and cheaper buttons can be made of milk in Chicago, and are now invading even Iquitos. The hope of the city lies in the prospect that oil may be discovered under the Andes. The eastern slope is supposed to be full of it and Iquitos plans to be the base of exploration and a transfer point from barge to ocean-going tanker. It is a

little ashamed of its new role which is something like that of a great munitions plant converted at the end of the war into a garage and bar.

The government is optimistically building a big tourist hotel on the malecón. After all, here is the jungle only four hours from Lima so that a high school teacher from Kansas City, Missouri, will be able actually to see a Jibaro in person, drinking rum at a bar, with an air of profound melancholy, and a glaze over his eyes which shows he is thinking of the rum as the blood of his tribal enemies killed in battle. She can probably exchange a few simple words with him in English, since the chances are that he is a Seventh Day Adventist converted by the nearby mission, and a conscientious one too, refusing flatly ever to work on Saturday.

At Iquitos we changed to an amphibious Catalina going down to Manáus. This curious machine sometimes sits down gracefully on the river like a duck, or in another place goes waddling down a long rough field to an abrupt stop on land. It is not very fast and it flies low, making detours around the huge balloon-like clouds which go careening by like great watering pots, each with a little private rainstorm trailing below it. They cast round, wet shadows on the jungle canopy below which, flat and tightly woven, stretches like a multicolored carpet as far as the eye can see in every direction. It is seamed here and there with quiet yellow rivers or dead oxbows, green with unhealthy vegetation. It is warm now in the aluminum cylinder of the plane, and even some of the Brazilians take off their coats, although they are well aware it is not good form, and would not be permitted on trains or street cars.

Manáus is not located on the Amazon itself but a short distance up the Rio Negro, and its great floating docks rise and fall with the river, and so does the railway which connects them to the land. Old high-water marks are recorded on a wall near the docks, one of them 15 meters above the present level. Here was once a

fine, rich, riotous city whose clothes are now too big for it. The great cathedral still ministers to the diminished population, but the imposing opera house no longer echoes to the voices of great European singers. The streets are lined with fine tall mangoes, among the most beautiful of all trees. Under these we sat with our friend Dr. Pessoa de Mello at a table on the side-walk in front of the principal bar in the center of town, where people of consequence gather at sunset after the afternoon shower. There is a great deal of conversation and appraisal of the girls who go by at intervals. Unfortunately there were very few of these that afternoon and none of them I am sure, was Miss Manáus. Dr. Pessoa lamented the passing of the good old days when life was exciting and there was plenty of yellow fever and malaria to keep a doctor busy. Manáus is now in the situation of a healthy dog without any fleas to keep it from brooding on the fact that it is a dog. The market however was lovely to see, especially for one who had been out of the tropics for years, and as everywhere in Brazil, good coffee was served every two hours at least. This undoubtedly helps to keep the people of Manáus awake.

We were up at crack of dawn and pursued the Madeira River upstream in another amphibian. This is the largest tributary of the Amazon, navigable by ocean-going boats as far as the cataracts at Porto Velho. These are the first of a long series of falls and rapids on the Madeira and its affluent, the Mamoré; they shake these placid rivers at intervals into paroxysms of foaming white water for 365 kilometres. Here 50 years ago ocean-going ships collected the rubber which was brought dangerously down to Porto Velho by canoe, on mules or on the backs of men, from Acre and the Bolivian river basins of the Beni and the Madre de Dios. In 1907 the construction of the Madeira-Mamoré railway was begun, and a way was finally cut through the jungle and around the cataracts in spite of malaria, yellow fever, resentful Nature and hostile Indians. But

just as it was completed in 1912 the rubber boom collapsed due to the much cheaper product of the Malay plantations. Now two trains a week run in each direction. They use up two days between Porto Velho and Guayaramirim and are the only connection between the far Brazilian and Bolivian hinterland and the outside world, through Belem do Pará. Some attempt is being made to colonize agricultural areas along the railway, but agriculture has never been very successful so far, in the Amazonas. Anyway, it is a unique transportation system, beginning and ending in the jungle, thousands of kilometres from any port or market. Monkeys peer at the passengers from the treetops, tapirs wander across the right of way and hold up the trains; anacondas slither and coil to frighten the children, and Indians in ambush try to wing the engineer with poisoned arrows as the train rattles past.

Our amphibian sat down on the water at Porto Velho, in a tropical downpour, and the wet passengers climbed the high ladder-like stairs to the top of the cliff where a bus was waiting to take them to town. The Hotel Brasil was one of the old laborers' barracks remaining from construction days, built with great verandahs surrounding each of the two floors after the style of the Panama Canal Zone. Porto Velho is the capital of the new territory of Guaporé, and we had made elaborate arrangements far in advance through the Brazilian government for hospitality and transportation, but no one in Porto Velho seemed ever to have heard of us. The house of the Governor was just across the street and we set out to call on him at once. A little black maid said he was out. "When will he come home?"—"At lunch time." "And when is lunch time?"—"When the Governor comes home." So we sat down and waited and the Governor came home.

All of our apprehensions were immediately relieved. He had actually sent someone to meet us but we had evidently missed him. *Que urucubaca!* We must first lunch with him and then he would

put his diesel motor coach at our disposal. Soon we were at table mixing great quantities of feijoada with farofa, and washing it all down with cachaça, while the Governor, between mouthfuls, told us about Porto Velho, fastest growing town in Brazil, capital of a territory as big as São Paulo with a total population of 25,000—a rough estimate since the Indians are hard to count.

The Governor may have been a little optimistic about colonizing the Amazonas and turning it into a source of food for a humanity which is outgrowing its means of supply. Clearing the jungle and holding it back is in itself a superhuman task. The jungle is maintained by a rich layer of humus and decaying organic material over what is often basically poor soil. Once cleared, the deluge of rain (measured in meters, not millimeters) soon leaches the minerals from the exposed soil and the tropical sun which knows no winter, oxidizes the organic nitrogen, burning it up like magnesium powder. Many famous banana plantations of Central America passed from virgin jungle through cultivation to abandonment in 7 or 8 years. Clearing of the forest, says William Vogt in his alarming book "Road to Survival", disorganizes the equilibrium and unleashes the forces of destruction. The water table falls, rain forest is invaded by humid forest, humid forest by wooded savannah, wooded savannah by thorn-bush, and thorn-bush by steppe and desert. Furthermore, no one knows whether the physiology of the white man can be adapted over long periods, to life in the tropics. The outlook for any rapid conquest of the Amazon jungle is not bright.

Firmly withstanding the pressure of hospitality, we left Porto Velho the afternoon of the day we arrived, since unless we could catch the plane next day to Cochabamba, we would be condemned to remain in Guayaramirin a week. The diesel auto-car was very comfortable—even luxurious, and we pounded along at 40 kilometres an hour over a narrow gauge track which would not stand for more. At sundown

the provincial doctor who accompanied us brought out for each of us a cardboard box marked in printed letters: PACKET, FOOD, INDIVIDUAL, COMBAT, IN-FLIGHT. This had been left to him by an army pilot sent out during the war to search for a lieutenant who had wandered into the forest looking for rubber and was never seen again—probably killed by Indians. The rations were sufficient but a little too tasty, being probably five years old.

We stopped to chat with a railway maintenance gang whose camp had been burned down by Indians a week before and all the cattle and supplies stolen. Later we paused at one of the cataracts of the Madeira River and walked to the river bank through a pasture full of red bugs, which took their revenge during the succeeding week. The river was unnaturally low, and yet was very impressive in its channels deeply carved in the solid rock. Here was a post of the Serviço do Proteção aos Índios founded by Colonel Rondon. The Brazilian policy toward even the most hostile Indians is one of sweetness and light in the hope eventually of seducing them into

civilized behaviour. At present however what seems to be needed is a Proteção aos Empregados do Ferrocarril. Long after dark we reached Fortaleza do Abuná and crawled into clean beds just as the electric lights went out at eleven. Every house had been painted with DDT and we did not have to worry about malaria.

We were off again in the morning at an early hour, stopping no more, but squealing around curves at a dangerous rate to reach Guayaramirim before our plane should have come and gone. Guayaramirim Brasileiro faces Guayaramirim Boliviano across the wide Mamoré, just above the first cataract. We grabbed our baggage and clambered down the steep river bank to a launch. On the other side we had no time for customs formalities since we should have had to find the official who was doubtless taking his siesta at home. We impressed a couple of men—the only creatures which seemed to be awake—to carry our bags, and arrived on the run, anxious and perspiring, at the airfield. There we were informed that the plane was delayed and was not expected till tomorrow.

Harvard Medical Society Meeting

DECEMBER MEETING

The Venous Side of the Peripheral Circulation was the theme of the first 1949-1950 meeting of the Harvard Medical Society held at the Massachusetts General Hospital. Dr. Robert Linton presided after being introduced by Dr. Simeone.

The first paper, on the spatial relationships of the principal veins of the lower extremity, was presented by Dr. Davitt Felder who is on leave from the University of Minnesota Hospital, and has been working in the Vascular Clinic of the Massachusetts General Hospital for the past year. Basing his conclusions on dissections and X-ray studies of 20 freshly amputated lower extremities he showed diagrams and

X-ray phlebograms indicating that accurate differentiation of specific veins on a single X-ray film is impossible following injection of radio-opaque solutions, and that stereo-roentgenograms of legs the veins of which have been injected is the only feasible means of identifying these vessels. Dr. Felder stressed the variability of venous channels in the leg.

Dr. Richard Warren of the Vascular Clinic of the Massachusetts General and the West Roxbury Veterans Hospitals presented the next paper on Venous Pressures of the Lower Extremity. Referring to the fundamental work of Weiss and Ellis, Burwell, Landis, and Beecher in

this field Dr. Warren listed the causes of change in venous pressure in the recumbent position as changes in arterial pressure (*vis a tergo*) and changes in the central resistance (*vis a fronte*). The former factor operates in post-sympathectomy patients and in arterio-venous fistulae where rises in venous pressure are local and not reflected generally if the heart is competent. Causes of increased central resistance fall into a general category exemplified by heart failure, constrictive pericarditis, asthma, and a regional group including as examples venous thrombosis, tumors (including pregnancy), and surgical interruption of veins. In any of these situations the degree of rise in venous pressure is generally limited to 40 or 50 centimeters of water. Much greater increases in venous pressures in the leg routinely accompany the erect posture as a direct result of gravity. The substance of Dr. Warren's paper was a report of measurements of venous pressure in the leg using a needle in the saphenous vein connected to a water manometer. The resting venous pressure in 20 normal subjects in the upright position averaged 100 cm of water; this fell 52 cm when the subjects walked in place at a rate of 120 steps per minute. In 77 patients with varicose veins the corresponding fall from resting venous pressure averaged only 27 cm of water; but with occlusion of the saphenous vein, drops averaging 57 cm of water were obtained. In 12 post-phlebitic patients no fall at all was obtained when the subjects walked, and slight rises were noted with concomitant saphenous occlusion. The findings in post-phlebitic legs were interpreted as indicative of canalization of thrombosed veins with resulting loss of valves and invalidation of the mechanism of the muscle-pump.

Dr. Irad Hardy presented the third paper entitled "The Post-Phlebitic Syndrome." He reviewed recent techniques of treatment and recommended a more radical approach. He described the post-phlebitic syndrome as characterized by the fol-

lowing signs and symptoms: lymphedema (100%), pigment (95%), varices (94%), pain (64%), stasis dermatitis (58%), stasis cellulitis (47%), and stasis ulcer (43%). He estimated that at least 80% of patients will develop ulcers after an attack of untreated deep phlebitis, 40% of these within five years of the attack, 75% within 15 years; some ulcers may appear as late as 30 years after the attack. In contrast only two patients of some 1500 who have had vein ligations at the Massachusetts General Hospital are known subsequently to have developed ulcers. The pathological physiology described is an increase in venous pressure resulting after canalization of the thrombosed veins. Clinical evidence to support this is the ease with which all but the largest ulcers can be healed by bed rest with elevation and elastic bandaging of the affected limb. Experience with various surgical treatments of the syndrome was listed:

<i>Procedure</i>	<i>No. of patients</i>	<i>% failure to improve</i>
Skin grafts alone	5	100%
Injections alone	2	100
Excision and skin grafts	13	77
Ligation and division of the saphenous vein	20	50
Lumbar sympathectomy	8	50
Limited ligation of the communicating veins		
of the lower leg	49	45
TOTAL	97	55

Dr. Hardy described a more radical procedure including ligation and division of the superficial femoral vein, stripping of the long saphenous vein and occasionally the short, and ligation and division of the communicating vessels of the lower leg when indicated. Of 49 patients (not the same listed in the chart above) treated by this extensive procedure, 39 had been followed for 28 to 44 months postoperatively, and these were presented. 14 had had lymphedema, induration and varices without ulcers. Of these 13 were improved; one who at first was not benefited improved subsequent to secondary ligation of the communicating veins of the affected lower leg. Of the 25 patients who had

previous ulceration, 10 showed no signs of recurrence 28 to 44 months after operation. The remaining 15 who were not benefited by initial operation had had extensive induration and many varices. Seven of these have had secondary ligation and division of the communicating veins with no subsequent recurrence of ulceration or other signs in 11 to 20 months of follow-up. From these results Dr. Hardy feels that radical surgery is of benefit and that in cases with marked induration, ligation and stripping of the short as well as of the long saphenous vein, and ligation and division of the communicating veins of the lower leg should be effected at the initial operation.

Dr. Robert Linton presented the final paper on Surgery of the Portal Venous System. He characterized this system as having no collaterals, no valves, and higher pressures than the general venous system, and confined his attention to surgery designed to alleviate portal hypertension and its serious complication, esophageal varices with bleeding. The two large groups of cases considered were those with portal hypertension secondary to cirrhosis and those with extrahepatic portal block (Banti's syndrome). Of patients diagnosed between 1934 and 1945 at the Massachusetts General Hospital as having esophageal varices secondary to cirrhosis and receiving no specific treatment, 62% were alive after one month, 37% survived one year, and after seven years only 14% were living. In contrast, those patients with esophageal varices secondary to extrahepatic portal block had a 95% one-month and a 35% seven-year survival rate. Hemorrhage is an important prognostic sign in these patients, as evidenced by the fact that 54% of cirrhotics with varices who

had hematemesis died within one year. Dr. Linton called the use of Roundtree's balloon an excellent measure in emergency treatment of bleeding from esophageal varices. The balloon pressure controls the bleeding and within 12 hours spontaneous thrombosis of the ruptured vessels can be expected. Another emergency measure is tying of the splenic artery sufficiently far from the hilum of the spleen not to compromise the short gastric arterial supply. Dr. Linton believes this procedure has saved a few patients with intractable esophageal bleeding. More definitive and hopeful surgery to correct or relieve portal hypertension lies in venous shunt procedures. Eck produced the first such operation by anastomosing the portal vein and the inferior vena cava in the experimental animal. Blakemore and Whipple in 1945 first reported an end to end anastomosis between splenic and renal veins. In 1946 Dr. Linton introduced the end to side spleno-renal shunt. He lists as its advantages: 1) the liver is not bypassed completely; 2) portal hypertension is decreased; 3) splenectomy itself decreases portal in-flow by 40%; 4) splenectomy interrupts several veins feeding the esophageal varices; 5) it is safer than the porta-caval anastomosis; 6) there is a decreased incidence of thrombosis of the anastomosis due to a) sucking action of a functioning renal vein, b) suture technique; 7) the left kidney is saved. Points 6) and 7) are contrasted with the end to end spleno-renal shunt while the others refer to both types of spleno-renal shunts. The Massachusetts General Hospital mortality figures since 1945 are not yet sufficiently prolonged to allow exact comparison with the 1934-1945 series, but they are encouraging.

DONALD S. GAIR, '50

August Krogh 1874-1949

Many graduates of the Harvard Medical School and of the School of Public Health read of the death of Professor Krogh last September. Many too heard him speak or experienced his quiet friendliness on his visits to our laboratories. He was devoted to this country and came here frequently. His friends, usually former students, were scattered from coast to coast and welcomed him with frank affection and profound respect.

More than any other European of our generation Krogh's influence was felt in the Harvard Medical and Health Schools. Nine members of our faculty went to him for training, or better, for experience in the workrooms of a master. In the order of their going they were:—

David L. Edsall, Jackson Professor of Clinical Medicine, 1912-1923, Dean of the Harvard Medical School and School of Public Health, 1918-1935.

James H. Means, Jackson Professor of Clinical Medicine, 1923 to today.

Cecil K. Drinker, Professor of Physiology, 1923-1948; Dean, School of Public Health, 1935-1942.

Edward D. Churchill, John Homans Professor of Surgery, 1931 to today.

Eugene M. Landis, George Higginson Professor of Physiology, 1943 to today.

Henry K. Beecher, Henry Isaiah Dorr Professor of Research in Anesthesia, 1941 to today.

Madeline F. Warren, Assistant Professor of Physiology, 1942-1943.

August Krogh was born in a little town in Juland, where his father owned a small brewery. He completed his preliminary training rapidly and became increasingly captivated by zoology. It proved difficult to convince his father that this subject offered a satisfactory career but he finally succeeded and was admitted to Christian Bohr's laboratory in 1897. Bohr was one of the leading physiologists of the day. His name stays with us, as a result of his description of the action of carbon dioxide in causing the release of



oxygen from hemoglobin—the "Bohr effect."

Krogh decided to become a physiologist after listening to Bohr's first lecture. It was natural that, under such a master, he should turn first to respiratory physiology. His doctor's degree was gained in 1903, for his work, still a classic, upon "The Lung and Skin Respiration in the Frog." In 1910 he was given a laboratory of his own and in 1916 was made Professor of Zoophysiology in the University of Copenhagen. Originally his designation was in "Dyrefysiologi," animal physiology, but this was changed at his request to Zoophysiology to avoid annoyance from the antivivisectionists. This first laboratory was made over from the old laboratory of bacteriology in "Ny Vestergade 11," and there Professor Krogh and his wife, Marie Krogh, M.D., worked steadily, received graduate students from all parts

of the world and in their comfortable quarters upon the two upper floors reared an attractive family.

The laboratory occupied three floors of an old building in a solid block of stone houses, such as we might find on Marlboro Street. In the basement there were quarters for a few small animals, a dark room, a small machine shop and storage space. Above this were rooms leading into a lecture room. The real laboratory was upon the third floor. There, one found a room with biochemical desks, accommodating three or four students; a space large enough to admit a cot, and a little apparatus, where basal metabolism was done, a library of a few current books and journals; and finally two rooms for physiology, one the laboratory of Krogh's assistant, Dr. P. B. Rehberg, the other occupied during my year 1926-1927 by A. N. Richards of Philadelphia and by Dr. Churchill and myself. Krogh himself, Iversen, a clinician who was trying to utilize Krogh's micromethods for measuring colloid osmotic pressure in serum from patients, and Nakazawa, a Japanese, who had a naive and insatiable interest in what all of us were doing and exceedingly little idea of what he was attempting himself, beyond the fact that it was work set by the Professor and in consequence satisfactory beyond question.

About 10:00 each morning, Krogh drifted in noiselessly and took care to shake hands with each of us. Then, if he had been thinking of our problems and he usually had, he made comments and suggestions. He expected to hear of progress or to join in our individual difficulties. The laboratory was closely integrated but each worked for himself, even our Japanese colleague being certain

his labors, though in the common interest, belonged to him.

Krogh got the keenest enjoyment from laboratory work. He was a skillful and ingenious technician. He enjoyed apparatus but only as a means to an end. He pursued the unknown with ruthless simplicity and sagacity. It was impossible for him to succumb to the attractiveness of appliances. They were to serve an end and the simpler they were the better he was pleased.

In 1920 Krogh received the Nobel Prize for his work upon the capillaries. In 1922 he summarized this work in the Silliman Lectures at Yale, publishing these as his classical monograph upon the capillaries. In 1928 Professor Krogh had the pleasure of moving into the beautiful new laboratories given to the University of Copenhagen by The Rockefeller Foundation, given it is fair to say because of his services to physiology and medicine, particularly to these subjects in the United States. Doctors Landis, Beecher and Warren all worked in the new laboratory.

Krogh was of the group receiving the doctors' degree at the Harvard Tercentenary and thus is found on the rolls of the University, in addition to his intimate relations with members of the faculty. It was characteristic, that upon his official retirement, he constructed a small laboratory and went to work in a field to which he had long wished to devote himself, the respiration and gaseous metabolism of insects.

Those who worked with August Krogh will never forget his humor, his friendliness, and his personal interest. It is fortunate for Harvard that this man came to us through so many pupils.

CECIL K. DRINKER, M.D.

The Stethoscope



The academic year started on the crest of a high wave of enthusiasm. At the opening of the year the members of the First Year Class were greeted by Dean Berry, Provost Buck and by Dr. McDaniel of the Hygiene Department. The students soon sponsored two interesting meetings in Vanderbilt Hall: the first, an afternoon tea where Dean Berry met most of the undergraduates and many of their wives in a pleasantly informal fashion; the second, a dinner in Vanderbilt Hall which the students gave in honor of the new Dean. Here he had a chance to meet even a larger number of them and they, in turn, grew to know him better and had an opportunity to listen to him as speaker.—The Vanderbilt Hall Committee has held several meetings. The Committee is comprised of the various class presidents, a representative of the women students, two Faculty members—Dr. Hale Ham of the Department of Medicine and Dr. Marcus Singer of the Department of Anatomy—and the Assistant Dean. This Committee is growing in importance and vigor and now is largely responsible for the proper running of the Hall. Anyone interested in the dormitory and its needs should communicate with the Chairman of the Committee.—The various new doors demanded by fire regulations have been put in place within the School buildings and, contrary to expectation, have not interfered appreciably with internal appearances.—The quarters of the Dean's Office have been re-arranged and in order to provide more space, the Office of the Department of Hygiene has been established in Vanderbilt Hall. When the building was designed, a small wing was tacked on to

the western end for maid's quarters in the event that the "Deanery" should ever be occupied by a House Master. This small building—a part of the Hall but essentially independent of it—has been made over for the Department of Hygiene and now affords excellent office space, a pleasant waiting room and a clinical laboratory for the benefit of any students needing medical advice. The result is a distinct improvement.—The Faculty has held three meetings, each with President Conant in the Chair. In addition to the routine business of appointments and re-appointments to the Teaching Staff, Dr. Frazier spoke at one meeting of the objectives of the Department of Dermatology and Dr. Duncan Reid at another of the objectives of the Department of Obstetrics. It interested the Faculty to learn of Dr. Frazier's new approach to teaching and research in his field and to hear of the problems concerned within a modern Department of Obstetrics, how teaching goes forward, how a new out-patient department and research laboratory are in the process of development at the Lying-In Hospital and, in general, an account of the wide field of knowledge in relation to maternal and child welfare that now is being explored. The Faculty also discussed the perennially debatable question of how best to select an entering class of students. There appeared to be no sure indication as to the type of man most likely to do well in medicine; educational background, intelligence, ambition and character all played a part in building success. The upshot was that each member of the Faculty seemed to wish to teach only good students; nobody knew exactly how to choose a hundred and twenty-five future Nobel prize winners from eighteen hundred potential candidates. And, finally, the Faculty discussed at great length Senate Bill 1453—the bill offering an emergency five-year experimental program of grants and scholarships for education in the field of medicine, osteopathy, dentistry, public health and nursing. Dr. Earle Chapman, a delegate from the Massachusetts Medi-

cal Society to the House of Delegates of the American Medical Association described the fears of the Trustees of the A.M.A. who advocated disapproval of the bill chiefly on the dreaded grounds of federal control of medicine; Dean Berry outlined the opinions which had led the majority of medical schools to favor passage of the bill. Medical schools, in general, he said, felt that the fears of the A.M.A. were exaggerated and that the bill, if passed, would be only an experiment to meet an acute financial emergency now confronting many prospective doctors as well as the medical schools wherein they hoped to obtain education.—Dr. Fuller Albright, HMS 1924, has had added another laurel to his distinguished wreath. He was recently awarded the Borden award of 1949 for his outstanding studies in endocrinology and calcium metabolism. Dr. Louis K. Diamond, HMS 1927, was selected by the Phi Lambda Kappa medical fraternity as the outstanding physician-scientist of the year.—Shortly after the Class of 1909 held its fortieth reunion, the Class and the Harvard Medical Alumni Association lost by death three distinguished members: James J. Hepburn, William D. Reid, Raymond S. Titus.

Book Reviews

EXPLORER OF THE HUMAN BRAIN: THE LIFE OF SANTIAGO RAMON Y CAJAL. By Dorothy F. Cannon, 275 pages. New York: Henry Schuman, 1949. Price \$4.00.

This addition to the Life of Science Library describes the life and achievements of Spain's greatest scientist of modern times. It is a straight-forward account of Cajal's colorful boyhood and student days, his service in the Spanish Army in Cuba and his steady progress in neuroanatomical research, leading to many national and international honors, including the Nobel Prize.

Cajal is an especially attractive figure for scientific biography because there exists a wealth of well-documented anecdotes from his boyhood and student days, showing him to be

a highly individualistic, somewhat stubborn yet incisive person. At first he wished to become an artist and showed no little talent in that direction but was discouraged by his father. However, he was able to use his artistic talents to excellent advantage in illustrating his publications. In his mature years he steadily produced discoveries of first importance concerning the nature of the nervous system and at the same time preserved an active interest in the humanities and a broad penetrating but benign philosophy. This was marred only in his old age by some jealousy of his most brilliant pupil, Hortegea.

Cajal's greatest contribution was the final anatomical proof that the neurones are completely separate units, and it was for this that he was awarded the Nobel Prize jointly with Golgi. Hardly less distinguished, however, were his studies of the nature, distribution and changes in the glia, particularly the astrocytes, and of degeneration and regeneration of the nervous system.

Any biography of Cajal must stand comparison with Cajal's autobiography (*), one of the greatest autobiographies by a scientist, perhaps one of the greatest of all autobiographies. Cajal's introspective mind and literary skill enabled him to give a most vivid account of his picturesque life and to correlate his scientific work with his daily living in an extremely interesting manner. Many of the incidents which are recounted are reminiscent of the mechanism of association described by Lowes in the *Road to Xanadu*. Cannon's book is a factual account of Cajal's life with a fair though not detailed evaluation of his life and work. The autobiography gives an existing insight into his mind and heart. Cannon's account is a competent book; Cajal's is a great one. The reviewer hopes that those who read Cannon's biography will be stimulated to read or re-read *Recollections of My Life*.

The printing of Cannon's book is excellent, and the illustrations are very well reproduced. The photographs selected are the same as some of those used in the autobiography, but most of the drawings of cells in the central nervous system were furnished by Professor Tello, the Director of the Instituto Cajal in Madrid. Considering the large number of excellent photographs of Cajal, this duplication seems unfortunate. The illustrations of cells in the central nervous system are simpler but not so beautiful as Cajal's own pictures.

Orville T. Bailey, M.D.

*Ramon y Cajal, Santiago, *Recollections of My Life*, translated by E. Horne Craigie, *Memoirs of the American Philosophical Society*, Volume 8, Parts I and II, Philadelphia 1937.

UROLOGICAL ASPECTS OF SPINAL CORD INJURIES. By George C. Prather, M.D., 118 pages. Springfield, Illinois: Charles C. Thomas, 1949. Price, \$3.75.

The aim of this monograph, another volume in The American Lecture Series in Surgery, is to "review pertinent data of the urinary tract particularly as applied to injuries of the spinal cord." Dr. Prather is an experienced urologist who has long been associated with the Harvard Medical School and its teaching hospitals. During World War II he served as chief of the Urological Section of one of the larger Neurosurgical Centers in the United States. He records his views on the basis of the investigative observations made by others in experimental animals as well as from his own and others' observations of the injuries incurred both in civilian life and in the military casualties of the two World Wars. However, in spite of the rather extensive though still controversial data upon this subject in the literature, this volume presents only a rather cursory resume of the many problems relating to the innervation of the bladder and the genito-urinary complications associated with spinal cord and cauda equina trauma. Although it was undoubtedly the intention of the publisher and author to limit the scope of this book, it seems unfortunate that certain major aspects of the subject matter were not developed in greater detail.

Of the 118 pages and 7 chapters which make up the text, the first chapter, 71 pages in length, deals with the bladder. The remaining sections, totaling 43 pages, are devoted to changes in the upper urinary tract after spinal cord injury, changes in sexual organs after spinal cord injury, genito-urinary complications, results of treatment, military policy in World Wars I and II, and a suggested program for treatment. Following the text, there is a well-chosen and adequate list of 166 references and a very complete index. The print is readable, while the illustrations, both drawings and reproductions of x-rays, are clear with few typographical errors.

In his first chapter the author reviews the anatomy and nerve supply of the bladder and its outlet and then summarizes the experimental and clinical evidence upon which our present knowledge of vesical innervation and function is based. The results of observations made by many of the leading investigators in this field are briefly presented. In view of the conflicting data upon certain features of the mechanism of bladder function and the act of micturition it is regrettable that a desire for brevity did not allow for further elaboration upon some of the more interesting

phenomena of normal and abnormal urination. The relationship of the autonomic nervous system to bladder muscle tone is clearly presented, and the modern concept of the predominant role played by the parasympathetic system in initiating and completing vesical contraction is properly stressed. A very brief section is devoted to the influence of drugs on bladder action in both the normal and the neurogenic bladder. The second portion of the chapter deals with a discussion of the bladder after injury of the spinal cord and cauda equina in man. On the basis of his own experience in World War II with a series of patients who were examined several weeks after injury and were followed for a period of twelve to fifteen months, the author and his associates were able to identify three stages of recovery of bladder activity. In general, these are quite similar to those described by Holmes, Langworthy, McLellan, Monro and others. Although Prather recognizes a definite distinction between them, he does not stress sufficiently the variability of each phase nor the rapidity with which fluctuations may occur from one to another. However, as a working model his classification seems to be one of the simplest and most practical of the many which have been devised. A complete summary of methods of examination of the bladder and bladder neck is presented, including the use of cystometric study and its unquestioned value. A detailed report with illustrative cystometrograms of one or more difficult problems and a discussion of the various changes in vesical activity would have rendered this section of greater interest. The chapter concludes with an excellent resume of the various methods of caring for the neurogenic bladder. The author rightly condemns a program of intermittent catheterization and one of the non-drainage with overflow voiding or Credé emptying. He approves of suprapubic cystostomy with a properly placed tube if a long period of bladder drainage appears necessary or if transportation problems make a urethral catheter program difficult, and he advocates the use of a closed sterile drainage system, preferably tidal drainage by means of a small-calibre inlying urethral catheter of the Foley type.

The chapter on changes in the upper urinary tract after spinal cord injury demonstrates that there is no immediate alteration of renal or ureteral physiology unless complicating factors intervene. The section on changes in sexual function concludes, on the basis of a relatively limited study, that such function may be adversely affected in both cord and equina lesions, either partial or complete. Recent observations by Talbot on a group of 200 male paraplegics would indicate

that approximately one-third of these patients are unable to have erections.

The genito-urinary complications of cord injuries, a prominent cause of morbidity and mortality in World War I and before the present era of more potent chemotherapeutic and antibiotic agents, are discussed in adequate detail. Infection and calculus disease, in both the kidney and the bladder, are the principal offenders in this category. The author could not demonstrate in the majority of cases that reflux played an appreciable role in the production of renal sepsis. The importance of a high fluid intake, prevention and control of infection and frequent change of body position to avoid urinary stasis are emphasized as factors in the prophylaxis of stone formation; and he wisely advises that if possible, surgical removal of renal calculi be delayed until ambulation is imminent or accomplished. The frequency of infection of the genital organs, particularly the epididymus, is considered adequately, but the grave significance of epididymitis, wherein septicemia and death consequent to such infection has been recently reported in several instances, is not accented. Nevertheless, as a result of the organized, energetic and improved urologic program adopted in the recent war, Dr. Prather indicates in his next two chapters that the results of treatment of paraplegics in World War II have been appreciably better than ever before. Subsequent to a survey in October, 1945 of 1430 paraplegic patients who had reached hospitals in the United States, he found that 635, or 48 per cent, had re-established bladder activity and were voiding. Of those with complete transection of the cord, 29 per cent were voiding spontaneously with a reflex type

of bladder activity, while 71 per cent were still on either urethral or suprapubic drainage. In contrast, 65 percent of 750 cases with partial transection were voiding with voluntary control. The influence of the level of injury on the eventual status of vesical function is plainly evident in these figures. Statistics from the same survey revealed that at least 12.3 per cent of these patients had renal calculi and that at least 20 per cent had bladder calculi. In a concluding chapter notable for its clarity and intelligent approach, the author outlines in an excellent manner a program for the care of the urinary tract in cases of spinal cord injury. He acknowledges that a successful result depends as much on the skill of those in immediate charge as on the methods of treatment. Emphasis is placed in particular upon institution of early and adequate drainage, maintenance of a sterile technique and constant attention, a high fluid intake and output, repeated tests of renal function and vesical activity, prevention and control of infection, and early rehabilitation of both patient and bladder activity. In those instances where voiding is not resumed when expected, cystoscopic examination should be carried out and transurethral resection of the bladder neck performed in certain selected cases.

This monograph can be recommended unconditionally as an excellent summary of the pathologic physiology and treatment of the neurogenic bladder, and the policies and results of treatment in military casualties in World War II. This book is not satisfactory as a comprehensive and detailed reference source for specific guidance in the diagnosis and management of such cases.

George Austen, Jr. '34

Harvard Medical Society of New York

On April 13, the Society will have as guests and speakers at its annual dinner President James B. Conant and Dean George P. Berry. The meeting will be held at the Harvard Club, New York. This important meeting is being announced by special letter to all Medical School Alumni in New York, New Jersey, Pennsylvania and Connecticut.

There are nearly a thousand alumni in these four states and it is hoped that all who possibly can will come to the dinner. Of course alumni elsewhere will be more

than welcome. There will be cocktails, a good dinner, and the unusual opportunity to hear the President and the Dean discuss educational policies relating to the School.

The President has already spoken to the medical alumni in New York, but this is Dr. Berry's first appearance.

Reservations for the April 13 dinner (at \$7.50 per plate all inclusive) should be made by writing to Dr. George M. Wheatley, Secretary-Treasurer of the Harvard Medical Society of New York, 1 Madison Avenue, New York 10, New York.

Class of 1912

The Harvard Medical School, Class of 1912, has broken a record! In 1947 the thirty-fifth reunion was celebrated at a meeting at which twenty-six of the forty-six living members were present—and that was a fifty-five percent attendance. That reunion was such a happy occasion that the class could not wait for five years; they voted to meet again in two years.

On Friday, September 30, 1949, the thirty-seventh reunion began with a class dinner held at the Harvard Club of Boston and seventeen men came. The next morning the class motored to the "Ship's Cabin" in Marblehead, arriving in time for lunch. We had been to the "Ship's Cabin" in 1947. It is an attractive little Inn that Mr. C. H. W. Foster had built on the old coal wharf and he used part of it as his home. It was directly on the water's edge, clean, quiet and comfortable. Mr. Foster, well past 80, had been Treasurer of the Massachusetts General Hospital for many years. In the afternoon the classmates stepped off the piazza into the motor launch, "Kelpie," which took them around Marblehead Harbor—around Children's Island, into Beverly Harbor, into Salem Harbor and then finally back to the "Ship's Cabin." It was a lovely afternoon—not too cold—and with the wind off shore, the sea was smooth and everyone stayed well and happy—except that the Red Sox lost the pennant. On Saturday night Mrs. Russell, heart and soul of the "Ship's Cabin," gave us a lobster dinner cooked to perfection and in the evening lantern slides of previous meetings were shown.

Lewis W. Hackett, who has spent so many years with The Rockefeller Foundation in South America and Italy, was the life of the party. He told us about the great use of D.D.T. as a means of controlling all diseases borne by insects: typhus, yellow fever and malaria as well as scabies. D.D.T. is good also for bed bugs, chiggers and ticks. The Indians on the high plateau learned to ask for a dusting with

the ten percent D.D.T. powder. Interesting to the Secretary was the fact that neither local nor general reactions were observed either among patients or operators in spite of the large exposure. Dr. Hackett told us also about the governments and the politics in South America—with several interesting and amusing anecdotes.

To spend the night in Marblehead was well worth while for there was no pressure to get home early and the beans and fishcakes on Sunday morning could be enjoyed at leisure.

Our class is a real unit and the longer we live, the tighter are the bonds among us. In the last two years we have lost two members: Daniel C. Brennan and Ira B. Hull. We missed them.

Those present at the meeting were:

Donald V. Baker, Boston; Lyman G. Barton, Jr., Plattsburg, N. Y.; Whitman King Coffin, Boston; Joseph A. Donovan, Houlton, Maine; *Earle E. Farnsworth, Grand Island, Neb.; Lewis W. Hackett, Buenos Aires, Argentina; *William A. Hinton, Boston; Herbert H. Howard, Boston; Donald J. Knowlton, Winthrop, Mass.; Joseph L. Murphy, Taunton, Mass.; Ezekiel Pratt, Arlington, Mass.; Francis M. Rackemann, Boston; Orville F. Rogers, New Haven, Conn.; *Clifford G. Rounsefell, Wellesley, Mass.; Wilson G. Smillie, Philip D. Wilson, McIver Woody, New York City.

These men had planned to come but were prevented "by circumstances beyond control":

Louis H. Bauer, New York City; Frederick A. Collier, Ann Arbor, Michigan; Percy J. Look, Andover, Mass.; George R. Minot, Brookline, Mass.; John E. Talbot, Worcester, Mass.

At a short business meeting, plans for the Fortieth Reunion, to be held in the fall of 1952, were discussed. Dr. Rackemann was elected Secretary.

FRANCIS M. RACKEMANN, *Secretary*.

*Harvard Club dinner only.

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THE KEY TO THE RESIDENT SYSTEM

Only those who have experienced the joys and tribulations of an internship can fully appreciate Dr. Homans' description of hospital life in the early days of this century. His generation will recall the same or similar episodes with nostalgia for a supposedly bygone day, but younger generations will reflect not on how different things are today but how unchanging is the struggle. To be sure, the details have changed, becoming more varied and more specialized, but, if the task is well done, the total experience is as arduous and as gratifying as it was 50 years ago. The tension of responsibility first assumed; the burning interest in new cases; the unexpected devotion which the gravely ill patient arouses; the inward satisfaction of a difficult job well done; the foibles and apparent indispensability of trusted orderlies; the feuds with the nursing profession (and the affections unwittingly arising therefrom); the respect or disrespect inspired by the visiting staff; and the sacred hierarchy of the white suit itself; all these remain the same, the very essence of an internship.

It may appear to some that the resident system, now deeply entrenched in University Hospitals and beginning to appear in many progressive community hospitals,

robs the senior intern, the old "house surgeon or physician," of much of his prerogatives and responsibilities, imposing as it does an echelon of assistant residents and a resident between him and the visiting staff. This can and has happened where the system rigidly adheres to the German mold. Under such circumstances the House Staff become so many automatons, each striving for the professor's eye and each hoping one day to emerge from the ulterior darkness of the internship into the sunshine of the residency. In this guise there is no wisdom in the resident system.

A well-organized residency should preserve the same prerogatives for the senior house officer as the internship of Dr. Homan's day. The senior interne, he may be called a "junior assistant resident," is the individual who is directly in charge of a ward or two of patients with his "pup" and "junior" to help him. He should be the pivot on which the resident system turns. He should have ample opportunity to assume responsibility for the care of patients, he should be in contact with the relatives of patients and he should have direct access to the visiting staff on ward rounds. It should be clearly established that he is in direct charge of his ward and that the patients belong to him, more or less as if he were in private practice. All the technical phases of necessary surgery or complicated laboratory procedures may not be within his scope but the general workup of patients and their care should be arranged by him and through him. This is a major responsibility and requires intelligence and judgment on the part of the intern and he must learn to lean heavily on his residents for counsel and advice.

In this way the assistant resident and resident become in a sense full-time junior visiting men who guide the senior, help him if he is in trouble and, if necessary, beat upon him to rise to the unique opportunity and responsibility which his position offers. They must do this without usurping his prerogatives and without

interposing themselves between him and the visiting staff. The visiting staff in turn must recognize the senior intern as the doctor in charge of the patients and give him the benefit of their experience and knowledge. In dealing with him and his patients, they should observe the same amenities which are common to the profession in general. It is easy to "breeze through the wards" with the resident, leaving the interns in full cry behind, but it is not good teaching and, in a well run resident system, it should be regarded as very bad manners.

If in a residency training program the position of the senior intern is given the prestige it deserves, it retains all the traditions and opportunities of an earlier period. Moreover, it allows the individual intern to grow rapidly into a mature clinician and to begin the practice of his art under the most ideal conditions. A well trained, intelligent and responsible senior intern is the key to happy and efficient operation of the Resident System.

"HOBBIES"

In his inimitable essay "Painting as a Pastime" Mr. Winston Churchill makes it abundantly clear that to be "really happy and really safe" one must have hobbies. One of Mr. Churchill's hobbies is brick-laying, another is painting. In last summer's exhibition of the Royal Academy he had five small oils. They were not the best in the show, but they were far from the worst. How good they may, or may not, be is unimportant. What is important is what painting them did for Mr. Churchill. The way to rest one part of the mind, he assures us, is to use another part. "It is only when new cells are called into activity, when new stars become the lords of the ascendant, that relief, repose, refreshment are afforded." This is wisdom.

Dr. Drinker in his excellent article on Krogh in this issue gives us a vivid impression of this great scientist's professional accomplishments, and of his humanity.

However, Krogh, like Churchill, also had a hobby.

Krogh's hobby was an historical pursuit—the study of Norse explorations of North America. As early as 1912 or earlier, he had visited Greenland and interested himself in the welfare of the Eskimos and in the remains of medieval Norse settlements on that island. In later years, as did the Vikings, he pursued his interest westward. The Knutson expedition took off from Scandinavia in 1355 in search of the lost Greenlanders. In 1946 Krogh journeyed to Minnesota in pursuit of the Knutsonians. There he viewed the famous Kensington Rune Stone which is believed to be their last earthly relic. Krogh was convinced of the authenticity of this artifact, as indeed are most experts today. He also, on this visit to America, went to Newport, Rhode Island and had a look at its medieval stone tower, which various authorities had supposed, likewise, to be of Norse origin. Krogh strongly supported this hypothesis, but scientist that he was, urged, as had other archeologists, that the matter be settled by properly conducted excavations. He hoped that the Danes might participate in them. Such diagnostic digs were finally accomplished in the summers of 1948 and 1949, and the evidence obtained indicates conclusively that the early English settlers, not the Norse, built the tower. Why the early English should want to take time out from King Philip's War and such like preoccupations to build a medieval tower, God only knows, but then why does a New York railway magnate want to build a French Chateau on Fifth Avenue? Perhaps it is as well that Krogh died before this disillusionment occurred. It would have disappointed him, but he would have accepted it with serenity as any true scientist accepts the truth.

These few remarks about Churchill and Krogh are made to indicate that for complete sanity and the good life, hobbies, whether they be painting, fishing or digging, are indispensable.

THE DEAN AND THE STUDENTS

A new Dean welcomed a new first-year class to the Harvard Medical School on September 24, 1949. The novelty of the occasion for both parties gave it a singular warmth which the Dean expressed: "I shall always feel peculiarly close to this class."

He then revealed the Oslerian secret of success in life, "The magic word without which all study is vanity and vexation; the master word in medicine, Work." But he cautioned the class to plan their work, to budget their time and to leave room for relaxation and recreation. He encouraged them to be individualistic, to develop their own methods of study and to maintain the integrity of their own personalities. To those who found the going difficult, he repeatedly urged a visit to the Dean's office. "Don't worry by yourself. Talk to us in the Dean's office. Our door is open."

And again, "Don't worry about work, health or finances, come to the Dean's Office."

A solid and friendly relationship between the student body and the Dean's Office is a noble aspiration. Its quintessence is the belief by the student that the Dean's Office knows him and is interested in him as an individual. This is not easy to attain in the present complexity of medical school administration. Nor can it be solved by the simple expedient of having an assistant Dean for students. It is a spiritual thing, a quality of the heart and mind which must emanate from the Dean himself and diffuse through all the cells in his department, and these cells in turn must be rendered at least semi-permeable. Once attained it is easily perpetuated and then many generations of graduating classes will feel peculiarly close to the old Dean.

